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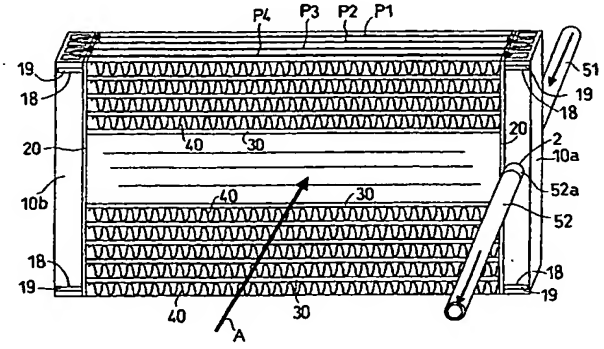
[Continued on next page]

(54) Title: HEAT EXCHANGER, METHOD FOR MANUFACTURING HEAT EXCHANGER, TUBE CONNECTING STRUCTURE FOR HEAT EXCHANGER HEADER TANK, GAS COOLER USING SUPERCRITICAL REFRIGERANT, AND REFRIGERANT SYSTEM



(57) Abstract: A heat exchanger according to the present invention includes a pair of header tanks 10a and 10b and a plurality of heat exchanging tubes 30 disposed between the header tanks and arranged in parallel. The header tank 10 and 10b is provided with partitioning walls 15 integrally formed to the header tank along the longitudinal direction. The inside space of the header tank is divided by the partitioning walls 15 into tank partions 11 to 014. Refrigerant turning communication apertures 17 are formed in the predetermined partitioning wall 15. The refrigerant passages 35 of the heat exchanging tube 30 are grouped so as to correspond to each tank portion of the header tank 10a and 10b to thereby form a plurality of passes P1 to P4. The refrigerant introduced into the first tank portion 11 of one of the header tanks 10a passes through each passes P1 to P4 in this order from the rear side toward the front side, and then introduced into the fourth tank portion 14 of the other of the header tanks 10b. According to this heat exchanger, enough pressure resistance and heat exchanging performance can be obained.

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